(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 13 May 2004 (13.05.2004)

PCT

(10) International Publication Number WO 2004/040876 A3

(51) International Patent Classification7:

H04L 29/06

(21) International Application Number:

PCT/EP2003/050784

(22) International Filing Date:

3 November 2003 (03.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0225567.7

1 November 2002 (01.11.2002) GB

(71) Applicant (for all designated States except US): NOKIA CORPORATION [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).

(72) Inventor; and

(75) Inventor/Applicant (for US only): LIPSANEN, Matti [FI/FI]; Rauhankatu 28 as. 15, FIN-20100 Turku (FI).

(74) Agents: DERRY, Paul, Stephan et al.; Venner, Shipley LLP, 20 Little Britain, London EC1A 7DH (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,

GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW. (84) Designated States (regional): ARIPO patent (BW, GH,

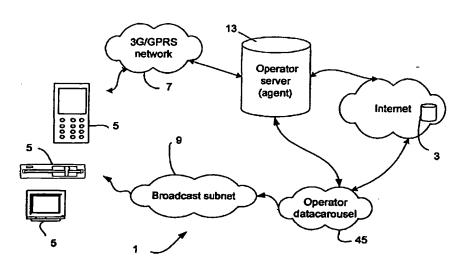
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: CONTENT DELIVERY IN HYBRID NETWORKS



(57) Abstract: A user through a mobile or fixed terminal (5) informs an agent (33) hosted by an operator server (13) of subjects in respect of which content is requested. The agent (33) searches the internet for relevant content, and determines from a set of user preferences, relating to cost and timing of delivery preferences, a network for use in delivering the content to the terminal. Delivery may be made by a free network, e.g. a WLAN or Bluetooth network, if one is available, or over an expensive network such as a 3G, GSM or GPRS network if the content is requited quickly. If delivery is to be made over a broadcast network (11), such as a DVB-T network (11), a signal is sent to the terminal over a mobile telephone network (7) giving the time of broadcast, in response to which the terminal (5) enables its broadcast receiver at the appropriate time. Also, the agent (33) periodically reviews the content on a data carousel (45) which is awaiting broadcast, and informs the terminal (5) of any forthcoming content which is relevant to the user request.